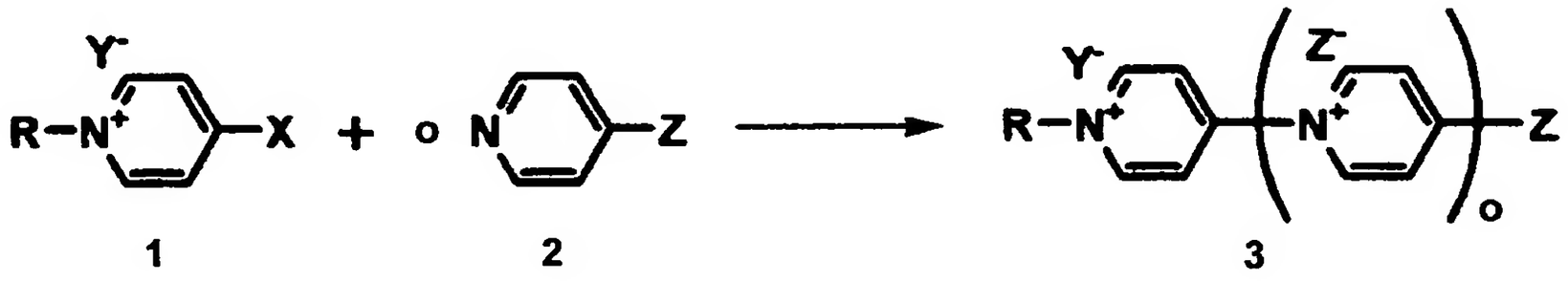
Abstract

A production method for polypyridinium having a narrow molecular weight distribution and a desired molecular weight is provided. Polypyridinium 3 having a narrow molecular weight distribution and a desired molecular weight is synthesized by allowing a pyridine derivative monomer 2 to polymerize on a polymerization initiator 1 such as a specially designed 4-halopyridinium and the like in the presence of a dissolution accelerating agent, such as tetrabutyl ammonium tetrafluoroborate, that dissolves the polymer formed in a solvent as in the chemical below.

[Chemical Equation 4]



1 2 3

where Y represents an anion that dissolves in an organic solvent, X and Z represent halogen atoms, R represents hydrocarbon groups and the like and o is about 1 to 300.